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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE FINAL PHASE I RFI/RI WORK PLAN FOR OPERABLE UNIT 5 WOMAN CREEK PRIORITY DRAINAGE	Manual No.: Procedure No.: Page: Effective Date: Organization:	21100-WP-OU 05.1 Table of Contents, Rev7 1 of 2 12/07/94 Environmental Management
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Technical Memorandum No. 15
Amended Field Sampling Plan
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summaries of the basic data were made for purposes of a critical evaluation of these historical data to determine which water-quality constituents may potentially constitute site contaminants at Pond C-2. The basic data and time series used are presented in EG&G (1994a) and are not reproduced in this document.

For a list of historical RFEDS data at Pond C-2 see Table 2.6.1.2-1. Results of a comparison of results at Pond C-2 for historical data (data collected both as part of sitewide RFP sampling and pond operational sampling) to BUTLs indicated that many water-quality constituents had concentrations higher than the BUTL. A summary of these constituents are presented in Table 2.6.1.2-3. In addition to the field and miscellaneous measurements, radionuclides, trace metals and major cations, selected VOCs, SVOCs, pesticides, and herbicides were detected at concentrations higher than detection limits in water samples from Pond C-2. These constituents included 1,1,1-TCA, acetone, ~~ametryn~~, atrazine, bis(2-ethylhexyl)phthalate, carbon tetrachloride, methylene chloride, ~~prometon~~, ~~prometryn~~, ~~propazine~~, ~~simazine~~, ~~simetryn~~, ~~terbuthylazine~~, PCE, toluene, total xylenes, and TCE (EG&G, 1993j, Table 4B).

In summary, based upon comparison of historical Pond C-2 water-quality concentration data to BUTLs at RFP for both dissolved and total constituent concentrations, it is concluded that the constituents in Table 2.6.1.2-1 are potential water contaminants at Pond C-2. Further statistical tests will be undertaken to assess, based upon the total database available, if these concentrations actually constitute site contaminants, or if uncertainties in both the actual and background data only make it appear that these concentrations can be concluded to be site contaminants. Some of the uncertainties in the historical data include analysis methods, reporting formats, errors in data reporting, and reporting errors in total versus dissolved concentrations.

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Table 2.6.1.2-3 (cont.): Summary of Constituents Exceeding Background
Historical Pond C-2 Water-Quality Constituents

Pesticides/PCBs

Analyte Name	Detection Limit ³⁾	No. of Analyses	No. of Detects	Site Min.	Site Max.	Site Avg.	Units
Ametrya	0.06 & 0.6	57	0	0.18	0.60	0.20	UG/L
Atrazine	0.05 & 0.5	68	45	0.14	190	4.97	UG/L
Cyanazine	1	54	0	0.30	0.30	0.30	UG/L
Prometon	0.03 & 0.3	57	0	0.09	0.30	0.10	UG/L
Prometryn	0.06 & 0.6	57	0	0.18	0.60	0.20	UG/L
Propazine	0.03 & 0.3	57	0	0.09	0.30	0.10	UG/L
Simazine	0.06 & 0.6	57	0	0.10	0.60	0.20	UG/L
Simetryn	0.07 & 0.7	57	0	0.21	0.70	0.24	UG/L
Terbutylazine	0.03 & 0.3	57	0	0.09	0.30	0.10	UG/L

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Semi-Volatile Organics

Analyte Name	Detection Limit ³⁾	No. of Analyses	No. of Detects	Site Min.	Site Max.	Site Avg.	Units
Bis(2-Ethylhexyl)Phthalate	10 - 16	18	9	2.00	44.0	11.5	UG/L
DI-n-Butyl Phthalate	10 - 16	18	2	2.30	10.0	9.18	UG/L

Volatile Organics

Analyte Name	Detection Limit ³⁾	No. of Analyses	No. of Detects	Site Min.	Site Max.	Site Avg.	Units
1,1-Dichloroethane	4 & 5	115	1	0.20	5.00	4.17	UG/L
1,1,1-Trichloroethane	4 & 5	116	3	0.10	7.00	4.20	UG/L
1,1,2-Trichloroethane	4 & 5	115	1	0.14	5.00	4.17	UG/L
1,1,2,2-Tetrachloroethane	5	115	1	0.10	5.00	4.17	UG/L
1,2-Dichloroethane	4 & 5	115	1	0.10	5.00	4.17	UG/L
1,2-Dichloropropane	5	115	1	0.10	5.00	4.17	UG/L
1,2-Dimethylbenzene	Not Available	50	2	0.20	5.00	3.12	UG/L
2-Butanone	10	96	8	1.00	100	27.3	UG/L
2-Hexanone	10	96	2	1.00	50.0	19.4	UG/L
Acetone	10	95	27	1.00	100	23.2	UG/L
Benzene	5	115	1	0.20	5.00	4.22	UG/L
Bromodichloromethane	5	115	2	0.20	5.00	4.17	UG/L
Carbon Disulfide	5	96	1	2.00	5.00	4.97	UG/L
Carbon Tetrachloride	4 & 5	115	2	0.20	10.0	4.22	UG/L
Chlorobenzene	5	115	2	0.10	5.00	4.25	UG/L
Chloroethane	10	114	1	0.20	10.0	8.29	UG/L
Chloroform	4 & 5	115	3	0.10	5.00	4.14	UG/L
Chloromethane	10	114	1	0.20	10.0	8.34	UG/L
cis-1,3-Dichloropropene	5	115	1	0.10	5.00	4.17	UG/L
Ethylbenzene	5	115	1	0.20	5.00	4.22	UG/L
Methylene Chloride	5	115	19	1.00	12.0	3.97	UG/L
Tetrachloroethene	4 & 5	115	3	0.04	13.0	4.23	UG/L
Toluene	5	115	4	0.20	6.00	4.16	UG/L
Total Xylenes	5	96	5	1.00	6.00	4.91	UG/L
Trichloroethene	4 & 5	114	3	0.04	15.0	4.23	UG/L

1) BUTL values from EG&G (1993i).

2) If this column contains a value, no BUTL has been calculated for this analyte. The maximum background concentration was used for site to background comparisons.

3) Variable or no detection limits are reported for individual analytes.